

Product Evaluation

SHU174 | 0421

Engineering Services Program

The following product has been evaluated for compliance with the wind loads specified in the International Residential Code (IRC) and the International Building Code (IBC).

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

Evaluation ID: SHU-174

Effective Date: April 1, 2021

Re-evaluation Date: April 2025

Product Name: Full View Colonial Shutter Hybrid

Manufacturer: Town & Country Industries
400 West McNab Road
Fort Lauderdale, FL 33309
(561) 512-9702

General Description:

Colonial shutters are constructed from 6063 T6 extruded aluminum alloy with a minimum $F_y = 25$ ksi. The shutters are available as either hinged shutters or sliding shutters. The hinged shutters consist of a minimum of two panels, each with maximum dimensions of 34" wide x 97-3/4" high. The hinged shutters may be mounted as a two, three, or four panel assembly. The sliding shutters consist of a minimum of two sliding panels, each with maximum dimensions of 37" wide x 97" high. The sliding shutters may be combined with the hinged shutters. Refer to the approved drawings for acceptable configurations. Each panel consists of either Colonial blades or Bahama blades across the width of the panel. An optional beam may be located across the front of the hinged shutter assemblies at a maximum distance of 12" from either the top or the bottom of the shutter assembly. The shutters may be secured to wood, concrete, or hollow concrete block wall construction.

Limitations:**Design Drawings:**

"Eyewall Armor Hurricane Protection Colonial Shutter;" Town & Country Industries; Drawing No. 20-24244.7; Sheets 1 thru 9 of 9; dated December 20, 2012; revised June 24, 2020; signed, sealed, and dated November 23, 2020, by Frank L. Bennardo, P.E. The stated drawings will be referred to as approved drawings in this report.

Shutter Configurations:

- Hinged Colonial shutters
- Sliding Colonial shutters
- Combination of hinged and sliding Colonial shutters

Wall Construction: The colonial shutters may be mounted to the following types of wall framing:

- Concrete, cast-in-place concrete (minimum compressive strength required specified in drawings)
- Hollow block concrete masonry units (CMU)
- Wood (minimum Spruce-Pine-Fir dimension lumber; G=0.42)

Mounting Conditions: The Colonial shutters may be wall mounted or trap mounted. Refer to the approved drawings for specific mounting conditions.

Allowable Design Pressure: The maximum allowable design pressure rating is +57.2, -66.2 psf.

NOTE: The shutters must be in a closed and locked position to achieve the allowable design pressure rating.

Maximum Span:

- The maximum allowable span for hinged shutters is 97-3/4".
- The maximum allowable span for sliding shutters or combination of sliding and hinged shutters is 97".

Maximum Width: The maximum allowable width for hinged shutters is 136". The maximum allowable width for sliding shutters is 148". Refer to the approved drawings for allowable shutter widths as a function of shutter configuration.

Maximum Dimensions of Individual Panels:

- Hinged shutters: 34" wide x 97-3/4" high.
- Sliding shutters: 37" wide x 97" high.

Beam: An optional beam may be installed horizontally across the front of the hinged shutter assembly. The beam is located at either the top or the bottom of the shutter assembly as shown on the approved drawing. The beam is secured to the wall framing as specified in the approved drawings.

Minimum Separation from Glass: The shutter system is a non-porous impact protective system. There is no minimum separation of glazing. The shutters may not be installed on essential facilities as defined in the IBC.

Product Identification: The shutter assembly has a permanent label that indicates the manufacturer (Town & Country Industries); the name of the product (Colonial Shutter); the missile level (9 lb Missile Level D); the test standards: ASTM E 330; ASTM E 1886, ASTM E 1996; and the TDI product evaluation report number (SHU-174).

Compliance: The shutters comply with ASTM E 330-14, ASTM E 1886-13a, and ASTM E 1996-14a.

Impact Resistance: This shutter assembly satisfies the Texas Department of Insurance's criteria for protection from windborne debris. The assembly passed a missile level equivalent to Missile Level D specified in ASTM E 1996-14a. The assembly may be installed at any height on the structure as long as the design pressure rating for the assembly is not exceeded.

Installation:

General Installation Requirements: The shutters must be installed in accordance with the manufacturer's installation instructions, the approved drawings, and this product evaluation report. Copies of the approved drawings must be available on the jobsite during inspection of the shutter assembly.

Anchorage: The shutters must be anchored to the structure in accordance with the approved drawings. Anchorage of the shutters to concrete, hollow CMU, and wood wall framing must follow the mounting conditions and fastener options specified on the approved drawings referenced in this evaluation report.

Note: Keep the manufacturer's installation instructions available on the job site during the installation. Use corrosion resistant fasteners as specified in the IRC and the IBC.